

Roni Lehrer, PhD

Mannheim Centre for European Social Research

A5, room: A214 — 68131 Mannheim — lehrer@uni-mannheim.de

Übung Methoden der Vergleichenden Regierungslehre: Beyond linearity

Fall Term 2020

Time and place: Thursdays, 12noon-1.30pm, Room: Zoom-Sowi-005

First session: 1st October 2020

Office hours: By appointment

This seminar's central focus is to prepare you for writing the empirical part of a Bachelor dissertation using non-linear Political Science data. We will learn what the assumption of linearity in econometric models implies, and how it can be relaxed. We will cover interaction models, log-linear regression, binary choice models, ordered and multinomial choice models, and maximum likelihood estimation.

The seminar will combine econometric theory, data visualization, Stata assignments, research examples that use the methods discussed in classes, and assignments to practice the development of an empirical part of a research paper.

Prior to the seminars, participants need to be familiar with the basics of OLS regressions.

You need to register for this class in advance via the Studierendenportal at <https://portal2.uni-mannheim.de>.

ECTS points: 6

All **course materials** can be accessed at <https://portal2.uni-mannheim.de>.

I will send out emails to your university e-mail accounts, so please check them regularly.

Requirements to pass:

1. Constant and active participation in class:

- It is mandatory to attend classes (online), and to participate in them actively.
- You need to use your name as your Zoom name, and you need to have you video activated at all times.
- You have to read the assigned literature before coming to class.

2. Stata Assignments:

- You will do regular Stata assignments to help you learn the skills you will need to write a final paper.

3. Final paper: (*determines your final grade*)

- Maximally 2000 words main text (i.e., excluding cover page, graphs, tables and references but including footnotes and endnotes).
- Very brief summarize the theoretical argument that gives rise to your hypothesis (in one or two paragraphs).
- Bring forward arguments why you test your hypothesis using certain data, methods, and model specifications.
- Present and interpret your empirical results in light of your theory.
- Submit by email including cover sheet, references, and Erklärung für Hausarbeiten.
- Due: 14th January 2021 at midnight.

Course Content and Reading List

* denotes mandatory readings for class

Session 1 — 1st October — Administrative issues, What is Linearity

Wooldridge, J. M. (2016). Introductory econometrics: A modern approach. Nelson Education. Chapter 5 (or the entire part on OLS regressions).

Session 2 — 8th October — The (non-)linearity of OLS, plotting effect sizes

Wooldridge, J. M. (2016). Introductory econometrics: A modern approach. Nelson Education. Chapter 7.1-7.4.

Brambor, Thomas, William Roberts Clark, and Matt Golder. "Understanding interaction models: Improving empirical analyses." *Political analysis* (2006): 63-82.

Berry, William D., Matt Golder, and Daniel Milton. "Improving tests of theories positing interaction." *The Journal of Politics* 74.3 (2012): 653-671.

Session 3 — 15th October — Examples of "Nonlinearity" in OLS models

*Ezrow, Lawrence, et al. "Mean voter representation and partisan constituency representation: Do parties respond to the mean voter position or to their supporters?." *Party Politics* 17.3 (2011): 275-301.

*Indridason, Indridi H., and Shaun Bowler. "Determinants of cabinet size." *European Journal of Political Research* 53.2 (2014): 381-403.

Session 4 — 22nd October — In-class Stata Session: Visualization and Interactions

Session 5 — 29th October — Maximum Likelihood Estimation

Wooldridge, J. M. (2016). Introductory econometrics: A modern approach. Nelson Education. Appendix 17A.

Session 6 — 5th November — Binary Choice with Logistic Regression

Wooldridge, J. M. (2016). Introductory econometrics: A modern approach. Nelson Education. Appendix 17.1.

Session 7 — 12th November — In-class Stata Session: Logistic Regression

Berry, W. D., DeMeritt, J. H., & Esarey, J. (2010). Testing for interaction in binary logit and probit models: is a product term essential?. *American Journal of Political Science* 54(1), 248-266.

Session 8 — 19th November — Examples Logistic Regression

Blom et al. (2020). Barriers to the Large Scale Adoption of the COVID-19 Contact Tracing App in Germany. <https://osf.io/bc3fv/>.

Session 9 — 26th November — Multinomial Choice

t.b.a.

Session 10 — 3rd December — In-class Stata Session: Multinomial Choice

t.b.a.

Session 11 — 17th December — Examples Multinomial Choice

t.b.a.